REMARKS

Claims 13, 15, and 16 have been canceled without prejudice or disclaimer as being drawn to a non-elected invention. The applicant reserves the right to pursue the canceled claims, or any other claims supported by the specification, in one or more continuation applications. Claims 1 and 3 have been amended to address the objection for a spelling raised by the Examiner. Similarly, claim 11 has been amended to correct a typographical error to address the objection. Claim 11 has also been amended to depend from claim 6 thereby addressing the rejection under 35 U.S.C. 112, second paragraph. Claim 8 has been amended to overcome the objection under 37 C.F.R. 1.75. Claim 10 has been amended to cancel subject matter rejected for indefiniteness, and claim 17 has been added to include the subject matter canceled from claim 10. New claim 18 is drawn to subject matter originally canceled from claim 9 for multiple dependent claim format. New claims 19 and 20 drawn to subject matter originally canceled from claims 11 and 12 for multiple dependent format. The application now includes claims 1-12, 14, and 17-20

Feature of Invention

An important feature of the invention lies in the different cultivation steps, namely in a first cultivation of cells at an unphysiologically high extracellular concentration of magnesium and, during cultivation at the unphysiologically high extracellular concentration of magnesium, raising the concentration further at a higher level of unphysiologically high extracellular magnesium concentration. The effect of the additional raising step during cultivation is discussed in the Examples (see page 13, at lines 35 et seq.). While in the first cultivation step cultivating the cells already at unphysiologically high extracellular magnesium concentration, the cells proliferate. After further raising the magnesium concentration at even high levels of unphysiologically magnesium concentration, a differentiation of proliferated cells occur, thus allowing to arrive at chondrons.

Egerbacher

Claims 1, 2, 4-8, and 14 were rejected as being anticipated by Egerbacher (*Vet. Pathol.* 38:143-148, 2001). This rejection is traversed.

Egerbacher does not teach that cells which are cultivated in unphysiologically high extracellular concentration of magnesium, e.g., 1x concentration or 3x concentration as identified in the office action, are cultivated in a further step wherein said already unphysiologically high extracellular magnesium concentration is increased further, e.g., from 5mM to 10mM Mg. That is, while Egerbacher does teach cultivation at unphysiologicaly high extracellular concentration of magnesium, Egerbacher wholly lacks any teaching or suggest of an additional increasing step to convert the cells from the proliferation phase to the differentiation phase as demonstrated by the Examples of the present patent application. In view of the requirement in claim 1 that "characterized in that at least once the unphysiologically high extracellular Mg concentration is increased during cell cultivation" (emphasis added), and in view of Egerbacher lacking this feature, the rejection should be withdrawn.

Valetta

Claims 1, 3, and 4 were rejected as being anticipated by U.S. Patent 6,248,368 to Valetta. This rejection is traversed.

Like Egerbacher, Valetta teaches the use of a single level of unphysiologically high Mg concentration during concentration, but does not teach or suggest a further increasing step of the already given unphysiologically high extracellular concentration of magnesium. As noted in the Examples section of the patent application this bump up converts the proliferation phase of the cells into a differentiation stage. Moreover, Valetta does not teach the generation of chondrons as required in claim 1. In view of these distinctions, the rejection should now be withdrawn.

Masuda, Egerbacher, Valetta, and Halvorsen

Claims 1-12 and 14 were rejected as being obvious over U.S. Patent Publication 2001/0012965 to Masuda in view of Egerbacher, Valetta, and U.S. Patent 6,428,368 to Halvorsen. This rejection is traversed.

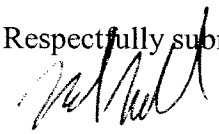
As noted in detail above, neither Egerbacher nor Valetta teach or suggest further increasing step of the already given unphysiologically high extracellular concentration of magnesium. As admitted in the office action Masuda fails to teach culturing chondrogenic cells in the presence of unphysiologically high concentrations of magnesium. Thus, Masuda also fails to teach the further increasing step of the already given unphysiologically high extracellular concentration of magnesium. Halvorsen has been cited for its teachings of the use of calcium alginate and oxygen. Like Masuoda, Halvorsent fails to teach culturing chondrogenic cells in the presence of unphysiologically high concentrations of magnesium, and the the further increasing step of the already given unphysiologically high extracellular concentration of magnesium. In short, no combination of the references would lead to or make obvious the claimed invention as none of the references contemplate starting with cultivation of cells at unphysiologically high extracellular concentrations of magnesium (Mg), and at least once increasing the unphysiologically high extracellular Mg concentration during cell cultivation.

In view of the above, it is respectfully requested that the application be reconsidered, that claims 1-12, 14, and 17-20 be allowed, and that the application be passed to issue.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

A provisional petition is hereby made for any extension of time necessary for the continued pendency during the life of this application. Please charge any fees for such provisional petition and any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-2041.

Respectfully submitted,



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